STATE OF WASHINGTON

DEPARTMENT OF AGRICULTURE

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November 2002 quarterly Animal Health newsletter

STATE VETERINARIAN'S MESSAGE

Animal Health continues its emergency preparedness. In August, we sponsored Crisis Communication training, a one-day workshop focusing on crisis management, working with the media and the impacts of a Foot and Mouth Disease outbreak. A tabletop exercise and field demonstration of equipment and supplies followed the training. This exercise helped all involved review the roles and responsibilities of all the local, state and federal officials who would be involved in responding to such a crisis.

We've had 2 West Nile Virus positive birds—a raven in Pend Orielle County and a crow in Snohomish County—and a WNV positive horse imported from North Dakota. There have been no human cases of WNV acquired in the state.

On the poultry front, we had 2 recent outbreaks of Infectious Laryngotracheitis. One case involved a 3-house broiler operation in Clark County. The other case involved a producer in Spokane County who had exhibition chickens that attended the recent Western Washington Fair in Puyallup. In both cases, quarantines were issued and flock plans were developed.

Two Equine Infectious Anemia positive horses were confirmed this summer. The 2 positives remain in an approved lifetime quarantine facility in Mattawa, Grant County. The 2 herdmates tested negative and are no longer under quarantine. As part of our surveillance, 22 horses in a 1-mile-plus radius were tested. All tested negative. Many hundreds of horses were privately tested in the Tri-Cities area and no positives were reported.

Private veterinarians, livestock producers and animal owners are asked to report unusual signs of animal illness or high death losses. Contact us at 360-902-1878 or the local USDA office at 360-753-9430. A state or federal field veterinarian will be assigned to investigate the possibility of a foreign animal disease.

Robert W. Mead, DVM

West Nile Virus—First isolated in 1937 in the West Nile District of Uganda, West Nile Virus now has widespread distribution, including Africa, Europe, the Middle East and West and Central Asia. It is still unclear how or when an infected person, bird or mosquito entered the country, initiating the bird-mosquito WNV disease cycle in the US. Since its detection in New York in 1999, the virus has spread throughout the US.

Equines should receive vaccinations to help protect against this disease. Fort Dodge has a conditionally licensed WNV vaccine, which requires 2 doses, administered 3 to 6 weeks apart. Immunity may not develop for 4 to 6 weeks after the second dose and it can take up to 10 weeks for a vaccinated horse to be protected. An annual booster is necessary to continue the protection. Clients should be advised that vaccinated equines might develop an antibody response, which may affect international export of vaccinated animals. Horses vaccinated against other mosquito-borne diseases (EEE, WEE, VEE) are **not** protected against WNV.

The WNV vaccine is licensed for ***use*** by veterinarians only, not ***administration*** by veterinarians only. Veterinarians and clinics can dispense this vaccine to clients with a valid veterinarian-client-patient relationship. The vaccine should not be offered for sale over the counter or dispensed without a valid veterinarian-client-patient relationship. There is no individual packaging available that meets the USDA rules for dispensing biologics.

Washington State had a WNV positive horse imported from North Dakota in late August. The one-year-old gelding did not show any clinical signs of WNV, but was examined and treated for a respiratory infection. The veterinarian tested for WNV since the gelding had recently arrived from North Dakota. This horse is not a clinical case and was exposed to the virus in North Dakota, so this case does not count as a Washington State case.

WNV has affected horses in North Dakota, South Dakota, Colorado, Montana and Wyoming this year. Each year, Washington State receives a number of horses imported from those states. The North Dakota gelding entered with

an official health certificate and a negative EIA test. Because infected equines are dead end hosts, no quarantine was issued.

To report possible WNV in equines, contact:
- The local WSDA or USDA Animal Health Area Veterinarian
- The State Veterinarian's Office, 360-902-1878
- The local USDA office, 360-753-9430

Many horses infected with WNV will not appear to be ill, while others become debilitated and too weak to rise. Horse owners are encouraged to contact their private veterinarian if their animals display symptoms such as loss of appetite, head tremors, muscle twitches or inability to stand. While only a few horses that are exposed become infected, of those that do, the death rate can be as high as 30%, with few treatment options available.

The Washington Animal Disease Diagnostic Laboratory (WADDL) offers WNV testing. Three tests are available—serology (IgM ELISA), immunohistochemistry and RT-PCR. All of these testing modalities are now on-line and in use at WADDL.

The IgM capture ELISA is intended primarily for suspect equine cases and is reported to be specific for true infection in that the vaccination does not cause positive results except in very recently vaccinated horses. Controls and reagents for the IgM ELISA are obtained from the CDC. WADDL has been running this test for over a month with stable and consistent results.

Immunohistochemistry is for virus antigen detection in fixed tissues, such as necropsy specimens. It is likely to be most effective in birds, as they are the species that have large amounts of antigen in the tissues. However, horses may also test positive and WADDL has control positive tissues from both birds and horses.

RT-PCR (direct and nested) detects viral RNA either from fresh or fixed tissues. It is the most sensitive test currently available for detecting the virus. The assay works well at WADDL and can be used on fixed equine tissues.

Surveillance on sick or dead birds is conducted by the state Department of Health. To report dead or sick crows, jays, ravens, magpies or raptors, contact:
- The local health department
- The state DOH, 360-236-3060

Reports will be evaluated to determine if birds should be tested. WNV testing of birds is conducted at the National Wildlife Health Center Laboratory in Madison, Wisconsin.

WNV is transmitted by a number of different mosquito species. There are several species in Washington that are potential or proven WNV vectors. There is no documented evidence of person-to-person, animal-to-person or animal-to-animal transmission of WNV.

Horse and stable owners should take action to reduce mosquito populations on their premises. Some measures include draining or treating stagnant water, mowing grass and weeds, applying repellents and putting up screens to protect homes and stables from mosquitoes. Horse owners may want to stable their animals at night to provide added protection. All repellents and insecticides should be used according to label directions.

For more information on WNV, try:
- DOH's site at http://www.doh.wa.gov/EHP/TS/ZOO/WNV/WNV.HTML
- USDA's site at http://www.aphis.usda.gov/oa/wnv/
- CDC's site with "WNV and dogs and cats" information at http://www.cdc.gov/ncidod/dvbid/westnile/qa/wnv_dogs_cats.htm

News from Other States—

- **California—**
- Recently, California diagnosed H5N2 Avian Influenza in a turkey breeding company. The company depopulated the ranch. Nonetheless, USDA had to notify Japan, Russia and Mexico of this finding. (E-mail September 19, 2002)

- Exotic Newcastle Disease was confirmed in game fowl October 1 near Los Angeles. This fatal viral disease affects domestic, wild and caged birds.

  Signs to watch for include:
  - birds that gasp and cough

- birds that exhibit central nervous system disorders, such as circling, depression, paralysis, drooping wings or dragging legs
- birds that produce fewer eggs
- birds that have greenish diarrhea
- birds that develop swelling on the neck and around the eyes
- unusually high death losses in the flock

Carrier birds can spread the virus through respiratory discharges or droppings. People become mechanical carriers of the disease when the virus is picked up and carried on shoes, clothing, feed trucks and equipment. Viral disinfectants, dry weather and sunlight kill the virus.

An outbreak in southern California in 1971 resulted in the depopulation of nearly 12 million birds on 1,341 farms. That outbreak cost taxpayers $56 million, took three years to eradicate, disrupted poultry production and trade and impacted prices of poultry products. Commercial poultry facilities have not been affected in this outbreak. USDA's factsheet on ND can be found at http://www.aphis.usda.gov/oa/pubs/fsend.pdf (E-mail October 3, 2002)

♦ **Michigan—**The Michigan State Veterinarian was notified September 13 that a Michigan State University lab was broken into. The thief acquired a culture of Actinobacillus (Hemophilius) pleuropneumoniae (APP) developed during vaccine research. This attenuated, mutant form of the bacterial strain causes pneumonia, bacteremia, encephalitis and a rapid, high death loss in pigs. It is highly pathogenic to swine. There is no food safety issue or human health hazard.

Evidence obtained suggests that the stolen biological samples have been destroyed. Additional investigative details are not being released. Biosecurity guides for pork producers are available at the National Pork Board's Web site, http://www.porkboard.org.

Actinobacillus pleuropneumoniae or APP is a common bacterium in swine that usually causes respiratory infection in young pigs. The endemic strain of APP causes outbreaks of respiratory disease in grower and finishing pigs. Clinical signs of the endemic strain of APP are dyspnea, fever, reduced appetite and rapidly occurring death. Cough and in some cases frothy and bloodstained nasal discharge can also be seen.

Most cases of infection occur by nose-to-nose contact after the introduction of infected carrier pigs. APP can be found in the tonsil, necrotic tissue and nasal cavity of recovered carriers or sub-clinical cases. Some reports concerning indirect transmission via contaminated clothing and airborne transmission do exist, but the major mode of transmission of APP infection is by the introduction of a carrier pig. Typically APP can be treated with antibiotics. For some endemic APP serotypes, there are vaccines available. (Conference call held September 17, 2002; E-mails dated September 18 and 23, 2002; News release September 20, 2002)

♦ *Oklahoma—**A Chronic Wasting Disease infected captive elk herd was depopulated in September. Seventy-one elk were euthanized, tissues collected and the carcasses were destroyed by incineration. This became a high profile issue due to the herd's location and previous press coverage. The premises will be cleaned and disinfected and no cervids will be introduced to the premises for at least 5 years. A perimeter fence will be maintained to prevent intrusion of native deer. (E-mail September 10, 2002)***

♦ *Texas—**Texas reopened its borders to importation of live black-tailed deer and elk. These animals must now meet new, stringent entry requirements to help prevent the introduction of Chronic Wasting Disease. Once standards are developed and adopted, white-tailed deer and mule deer can once again be imported. In the past year, CWD has been detected for the 1st time in Wisconsin, New Mexico and Minnesota. (News release September 5, 2002)***

Web site change—The Animal Health Program's Web site has a new address—http://www.wa.gov/agr/FoodAnimal/AnimalHealth/default.htm. The Department of Agriculture's homepage address has not changed. It is still http://www.wa.gov/agr. (E-mail July 31, 2002)

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